

Application Serial No.: 10/011,253

Title: Methods For The Prevention of Radon Emissions

Filed: December 16, 1999

Page 7

REMARKS

With entry of this amendment, Claims 1-29 are pending. Claims 1, 3, 22 and 24 have been amended. Claim 30 has been canceled. No new matter has been added by these amendments.

35 U.S.C. §103(a)

Claims 1-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Allen (U.S. Patent No. 5,551,976). The Office Action states that Allen discloses a method for the disposal of radioactive waste comprising: admixing a polymer with the waste material to encapsulate the waste within the polymer, wherein the polymer prevents radiation from passing through, further mixing the polymer-waste admixture with a shielding material wherein the polymer-waste mixture is incorporated within the shielding material, and forming the final mixture into solidified, round geometric shapes. Applicants traverse this rejection.

Allen discloses a super-plasticizer concrete composition for waste disposal. Super plasticizers enhance the compaction of difficult to compact cement/filler mixtures. (Allen, column 8, line 59 to column 9, line 5). Allen defines "difficult to compact cement/filler mixtures" as aqueous-solids mixture containing total solid particles comprising 70 weight percent of cement, with the balance being other solids of a cementitious and/or non-cementitious nature having an average cross-sectional dimension of at least 1 micron, that when thoroughly mixed with water comprising 38 weight percent of the degassed, resultant slurry devoid of superplasticizer and allowed to settle prior to set under an ordinary gravitational force do not settle to the extent that they occupy a volume which is less than 90 volume percent of the original, degassed cementitious slurry volume. (Allen, column 9, line 60 to column 9, line 7) The superplasticizer is usually a concrete superplasticized "containing at least one polymeric component or condensate selected from the group consisting of naphthalenes, melamines,

Application Serial No.: 09/071,253

Title: Methods For The Prevention of Radon Emissions

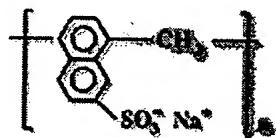
Filed: December 16, 1999

Page 8

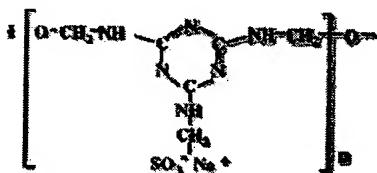
sulfonated naphthalenes and melamines, and ligonsulfonates, in the form of salts, polymeric salts, and other water-soluble or water-dispersible forms.” (Allen, column 6, lines 35-40). “It is known in the cement and concrete industries to use compounds known as ‘superplasticizers.’ Superplasticizers are a group of organic water soluble polymers with long molecules of high molecular mass, primarily used in the cement and concrete industries for their dispersion and water reduction properties. They effectively disperse the portland cement particles in hydrated concrete, thereby reducing water requirements and resulting in stronger concrete. These chemical compounds include polynaphthalene sulphonate (PNS), which is also known as sulphonated naphthalene formaldehyde condensate (SNF-condensate). A second family of sulphonate based superplasticizers includes polymelamine sulphonates (PMS), also known as sulphonated melamine formaldehyde condensate (SMF-condensate). A third family of superplasticizers includes carboxylated synthetic polymers. These latter polymers are highly effective dispersants and include polycarboxylates such as polyacrylates.” (U.S. Patent No. 6,533,848, attached.)

The polymers of the present invention, mineral oil, charcoal, activated carbon, silicates and sulfur, are not superplasticizers. Mineral oil is also known as “Paraffin oil; paraffin oil (class); Paraffin oils; adepsine oil; alboline; bayol 55; bayol f; blandlube; blandol white mineral oil; Cable oil; carnea 21; clearteck; crystol 325; crystosol; drakeol; Electrical Insulating Oil; Ervol; filtrawhite; fonoline; frigol; gloria; glymol; Heat-treating oil; hevyteck; Hydraulic oil; hydrocarbon oils; jute batching oil; kaydol; kondremul; kremol; lignite oil; liquid paraffin; Lubricating oil; Mineral oil; Mineral oil, paraffinic; Mineral oil, aromatic; Mineral oil hydrocarbon solvent (petroleum); mineral oil mist; Mineral oil (saturated parrafin oil); Mineral Seal Oil; Molol; neo-cultol; Nujol; oil mist; OIL MIST, MINERAL (MINERAL OIL); oil mist, mineral, severely refined; Oil mist, refined mineral; oil, petroleum; paroleine; peneteck; penreco; perfecta; petrogalar; petrolatum, liquid; Petroleum hydrocarbons; primol; primol 355; primol d; protopet; Saxol; tech pet f; triona b; Uvasol; white mineral oil; white oil;” (Chem finder, attached)

Oils are not the water-soluble or water-dispersible polymers required by Allen's definition of superplasticizers. (Allen, column 6, lines 34-39). Charcoal and activated charcoal are forms of carbon, and are also not water soluble or water-dispersible. Silicates are a form of mica which is also not water-soluble or water dispersible. While the superplasticizers described in Allen are frequently sulfonated, they are not sulfur. A sodium salt of sulfonated polymeric naphthalenes and melamines or lignosulfonates is different from sulfur in its pure form. Sodium naphthalene sulphonate as described in



Allen is



Melamine sulfonate is

While both of these contain sulfur, they are not sulfur itself. The polymers of the present invention are mineral oil, charcoal, activated carbon, silicates and sulfur. None of these compounds are superplasticizers. Allen requires superplasticizers in the concrete. Allen does not teach, disclose or suggest the present invention. Accordingly, the Examiner is requested to withdraw this rejection.

Application Serial No.: 09/253

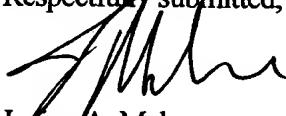
Title: Methods For The Prevention of Radon Emissions

Filed: December 16, 1999

Page 10

Applicants respectfully submit that this is a complete response to the Office Action dated January 27, 2003 and that Claims 1-29 are patentable. Early and favorable consideration is earnestly solicited. If the Examiner believes there are other issues that can be resolved by telephone interview, or that there are any informalities remaining in the application which may be corrected by Examiner's Amendment, a telephone call to the undersigned attorney at (404) 815-6500 is respectfully solicited.

Respectfully submitted,



Janina A. Malone
Reg. No. 47,768

KILPATRICK STOCKTON, LLP
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309-4530
Phone: (404) 815-6500
Fax: (404) 815-6555
Attorney Docket: 16715-0121 (44861-236277)